ATmega328P Registers

Memory Mapped Register Summary									
		Bit							
Addr	Name	7	6	5	4	3	2	1	0
0x00-1F	R0-R31	CPU General Purpose Working Registers mapped to data space							
0x20-22	Reserved	-	-	-	-	-	-	-	-
0x23	PINB	PINB7	PINB6	PINB5	PINB4	PINB3	PINB2	PINB1	PINB0
0x24	DDRB	DDRB7	DDRB6	DDRB5	DDRB4	DDRB3	DDRB2	DDRB1	DDRB0
0x25	PORTB	PORTB7	PORTB6	PORTB5	PORTB4	PORTB3	PORTB2	PORTB1	PORTB0
0x26	PINC	-	PINC6	PINC5	PINC4	PINC3	PINC2	PINC1	PINC0
0x27	DDRC	-	DDRC6	DDRC5	DDRC4	DDRC3	DDRC2	DDRC1	DDRC0
0x28	PORTC	-	PORTC6	PORTC5	PORTC4	PORTC3	PORTC2	PORTC1	PORTC0
0x29	PIND	PIND7	PIND6	PIND5	PIND4	PIND3	PIND2	PIND1	PIND0
0x2A	DDRD	DDRD7	DDRD6	DDRD5	DDRD4	DDRD3	DDRD2	DDRD1	DDRD0
0x2B	PORTD	PORTD7	PORTD6	PORTD5	PORTD4	PORTD3	PORTD2	PORTD1	PORTD0
0x2C-34	Reserved	-	-	-	-	-	-	-	-
0x35	TIFR0	-	-	-	-	-	OCF0B	OCF0A	TOV0
0x36	TIFR1	-	-	ICF1	-	-	OCF1B	OCF1A	TOV1
0x37	TIFR2	-	-	-	-	-	OCF2B	OCF2A	TOV2
0x38-3A	Reserved	-	-	-	-	-	-	-	-
0x3B	PCIFR	-	-	-	-	-	PCIF2	PCIF1	PCIF0
0x3C	EIFR	-	-	-	-	-	-	INTF1	INTF0
0x3D	EIMSK	-	-	-	-	-	-	INT1	INT0
0x3E	GPIOR0	General Purpose I/O Register 0							
0x3F	EECR	-	-	EEPM1	EEPM0	EERIE	EEMPE	EEPE	EERE
0x40	EEDR	EEPROM Data Register							
0x41	EEARL	EEPROM Address Register Low Byte							
0x42	EEARH	EEPROM Address Register High Byte							
0x43	GTCCR	TSM	-	-	-	-	-	PSRASY	PSRSYN
0x44	TCCR0A	COM0A1	COM0A0	COM0B1	COM0B0	-	-	WGM01	WGM00
0x45	TCCR0B	FOC0A	FOC0B	-	-	WGM02	CS02	CS01	CS00

Memory Mapped Register Summary

		Bit							
Addr	Name	7	6	5	4	3	2	1	0
0x46	TCNT0	Timer/Counter0							
0x47	OCR0A	Timer/Counter0 Output Compare Register A							
0x48	OCR0B	Timer/Counter0 Output Compare Register B							
0x49	Reserved	-	-	-	-	-	-	-	-
0x4A	GPIOR1	General Purpose I/O Register 1							
0x4B	GPIOR2	General Purpose I/O Register 2							
0x4C	SPCR	SPIE	SPE	DORD	MSTR	CPOL	CPHA	SPR1	SPR0
0x4D	SPSR	SPIF	WCOL	-	-	-	-	-	SPI2X
0x4E	SPDR	SPI Data Register							
0x4F	Reserved	-	-	-	-	-	-	-	-
0x50	ACSR	ACD	ACBG	ACO	ACI	ACIE	ACIC	ACIS1	ACIS0
0x51-52	Reserved	-	-	-	-	-	-	-	-
0x53	SMCR	-	-	-	-	SM2	SM1	SM0	SE
0x54	MCUSR	-	-	-	-	WDRF	BORF	EXTRF	PORF
0x55	MCUCR	-	BODS	BODSE	PUD	-	-	IVSEL	IVCE
0x56	Reserved	-	-	-	-	-	-	-	-
0x57	SPMCSR	SPMIE	RWWSB	-	RWWSRE	BLBSET	PGWRT	PGERS	SLFPRG
0x58-5C	Reserved	-	-	-	-	-	-	-	-
0x5D	SPL	SP7	SP6	SP5	SP4	SP3	SP2	SP1	SP0
0x5E	SPH	-	-	-	-	-	SP10	SP9	SP8
0x5F	SREG	I	T	H	S	V	N	Z	C
0x60	WDTCSR	WDIF	WDIE	WDP3	WDCE	WDE	WDP2	WDP1	WDP0
0x61	CLKPR	CLKPCE	-	-	-	CLKPS3	CLKPS2	CLKPS1	CLKPS0
0x62-63	Reserved	-	-	-	-	-	-	-	-
0x64	PRR	PRTWI	PRTIM2	PRTIM0	-	PRTIM1	PRSPI	PRUSART0	PRADC
0x65	Reserved	-	-	-	-	-	-	-	-
0x66	OSCCAL	Oscillator Calibration Register							
0x67	Reserved	-	-	-	-	-	-	-	-
0x68	PCICR	-	-	-	-	-	PCIE2	PCIE1	PCIE0
0x69	EICRA	-	-	-	-	ISC11	ISC10	ISC01	ISC00
0x6A	Reserved	-	-	-	-	-	-	-	-
0x6B	PCMSK0	PCINT7	PCINT6	PCINT5	PCINT4	PCINT3	PCINT2	PCINT1	PCINT0
0x6C	PCMSK1	-	PCINT14	PCINT13	PCINT12	PCINT11	PCINT10	PCINT9	PCINT8
0x6D	PCMSK2	PCINT23	PCINT22	PCINT21	PCINT20	PCINT19	PCINT18	PCINT17	PCINT16
0x6E	TIMSK0	-	-	-	-	-	OCIE0B	OCIE0A	TOIE0

Memory Mapped Register Summary

		Bit							
Addr	Name	7	6	5	4	3	2	1	0
0x6F	TIMSK1	-	-	ICIE1	-	-	OCIE1B	OCIE1A	TOIE1
0x70	TIMSK2	-	-	-	-	-	OCIE2B	OCIE2A	TOIE2
0x71-77	Reserved	-	-	-	-	-	-	-	-
0x78	ADCL	ADC Data Register Low Byte							
0x79	ADCH	ADC Data Register High Byte							
0x7A	ADCSRA	ADEN	ADSC	ADATE	ADIF	ADIE	ADPS2	ADPS1	ADPS0
0x7B	ADCSRB	-	ACME	-	-	-	ADTS2	ADTS1	ADTS0
0x7C	ADMUX	REFS1	REFS0	ADLAR	-	MUX3	MUX2	MUX1	MUX0
0x7D	Reserved	-	-	-	-	-	-	-	-
0x7E	DIDR0	-	-	ADC5D	ADC4D	ADC3D	ADC2D	ADC1D	ADC0D
0x7F	DIDR1	-	-	-	-	-	-	AIN1D	AIN0D
0x80	TCCR1A	COM1A1	COM1A0	COM1B1	COM1B0	-	-	WGM11	WGM10
0x81	TCCR1B	ICNC1	ICES1	-	WGM13	WGM12	CS12	CS11	CS10
0x82	TCCR1C	FOC1A	FOC1B	-	-	-	-	-	-
0x83	Reserved	-	-	-	-	-	-	-	-
0x84	TCNT1L	Timer/Counter1 - Counter Register Low Byte							
0x85	TCNT1H	Timer/Counter1 - Counter Register High Byte							
0x86	ICR1L	Timer/Counter1 - Input Capture Register Low Byte							
0x87	ICR1H	Timer/Counter1 - Input Capture Register High Byte							
0x88	OCR1AL	Timer/Counter1 - Output Compare Register A Low Byte							
0x89	OCR1AH	Timer/Counter1 - Output Compare Register A High Byte							
0x8A	OCR1BL	Timer/Counter1 - Output Compare Register B Low Byte							
0x8B	OCR1BH	Timer/Counter1 - Output Compare Register B High Byte							
0x8C-AF	Reserved	-	-	-	-	-	-	-	-
0xB0	TCCR2A	COM2A1	COM2A0	COM2B1	COM2B0	-	-	WGM21	WGM20
0xB1	TCCR2B	FOC2A	FOC2B	-	-	WGM22	CS22	CS21	CS20
0xB2	TCNT2	Timer/Counter2							
0xB3	OCR2A	Timer/Counter2 Output Compare Register A							
0xB4	OCR2B	Timer/Counter2 Output Compare Register B							
0xB5	Reserved	-	-	-	-	-	-	-	-
0xB6	ASSR	-	EXCLK	AS2	TCN2UB	OCR2AUB	OCR2BUB	TCR2AUB	TCR2BUB
0xB7	Reserved	-	-	-	-	-	-	-	-
0xB8	TWBR	2-Wire Serial Interface Bit Rate Register							
0xB9	TWSR	TWS7	TWS6	TWS5	TWS4	TWS3	-	TWS1	TWS0
0xBA	TWAR	TWA6	TWA5	TWA4	TWA3	TWA2	TWA1	TWA0	TWGCE

Memory Mapped Register Summary

		Bit							
Addr	Name	7	6	5	4	3	2	1	0
0xBB	TWDR	2-Wire Serial Interface Data Register							
0xBC	TWCR	TWINT	TWEA	TWSTA	TWSTO	TWWC	TWEN	-	TWIE
0xBD	TWAMR	TWAM6	TWAM5	TWAM4	TWAM3	TWAM2	TWAM1	TWAM0	-
0xBE-BF	Reserved	-	-	-	-	-	-	-	-
0xC0	UCSR0A	RXC0	TXC0	UDRE0	FE0	DOR0	UPE0	U2X0	MPCM0
0xC1	UCSR0B	RXCIE0	TXCIE0	UDRIE0	RXEN0	TXEN0	UCSZ02	RXB80	TXB80
0xC2	UCSR0C	UMSEL01	UMSEL00	UPM01	UPM00	USBS0	UCSZ01	UCSZ00	UCPOL0
0xC3	Reserved	-	-	-	-	-	-	-	-
0xC4	UBRR0L	USART Baud Rate Register Low							
0xC5	UBRR0H	-	-	-	-	USART Baud Rate Register High			
0xC6	UDR0	USART I/O Data Register							
0xC7-FF	Reserved	-	-	-	-	-	-	-	-

Source: ATMEL, "8-bit AVR Microcontroller with 4/8/16/32K Bytes In-System Programmable Flash," Rev. 8161D - 10/09 ©2009 Atmel Corporation.